For general information about the work of taxi drivers and the taxi industry, contact:

☛ International Taxicab and Livery Association, 3849 Farragut Ave., Kensington, MD 20895. Internet: **http://www.taxinetwork.com**

For general information about the work of limousine drivers, contact:

☛ National Limousine Association, 900 North Pitt St., Suite 220, Alexandria, VA 22314. Telephone (toll free): 1-800-652-7007.

Truckdrivers

(O*NET 97102A, 97102B, 97105, and 97117)

Significant Points

- Opportunities in truckdriving should be good because this occupation has among the greatest number of job openings each year.
- Competition is expected for jobs offering the highest earnings or most favorable work schedules.
- A commercial drivers' license is required to operate most larger trucks.

Nature of the Work

Truckdrivers are a constant presence on the Nation's highways and interstates, delivering everything from automobiles to canned foods. Due to their ability to link up with ships, trains, and airplanes, trucks usually make the initial pickup and final delivery of goods. Trucks carry nearly all goods at some point in their journey from producer to consumer.

Before leaving the terminal or warehouse, truckdrivers check their trucks for fuel and oil. They also inspect the trucks to make sure the brakes, windshield wipers, and lights are working and that a fire extinguisher, flares, and other safety equipment are aboard and in working order. Drivers make sure their cargo is secure and adjust their mirrors so that both sides of the truck are visible from the driver's seat. Equipment that does not work, is missing, or not loaded properly is reported to the dispatcher.

Once underway, drivers must be alert to prevent accidents. Because drivers of large tractor-trailers sit higher than cars, pickups, and vans, they can see farther down the road. They seek traffic lanes that allow them to move at a steady speed, while keeping sight of varying road conditions.

The length of deliveries varies according to the merchandise being transported and the final destination of the goods. Local drivers may provide daily service for a specific route, while other drivers make inter-city and interstate deliveries that take longer and may vary from job to job. The driver's responsibilities and assignments change according to the time spent on the road and the type of payloads transported.

Short haul or *local truckdrivers* may be assigned short "turnarounds" to deliver a shipment to a nearby city, pick up another loaded trailer, and drive it back to their home base the same day. They usually load or unload the merchandise at the customer's place of business. Drivers may have helpers if there are many deliveries to make during the day or if the load requires heavy moving. Typically, before the driver arrives for work, material handlers load the trucks and arrange items in order of delivery to minimize handling of the merchandise. Customers must sign receipts for goods and pay drivers the balance due on the merchandise if there is a cash-on-delivery arrangement. At the end of the day, drivers turn in receipts, money, records of deliveries made, and any reports on mechanical problems with their trucks.

The work of local truckdrivers varies depending on the product they transport. Produce truckers usually pick up a loaded truck early in the morning and spend the rest of the day delivering produce to many different grocery stores. Lumber truckdrivers, on the other hand, make several trips from the lumber yard to one or more construction sites. Gasoline tank truckdrivers attach the hoses and operate the pumps on their trucks to transfer the gasoline to gas stations' storage tanks.

Some local truckdrivers have sales and customer relations responsibilities. The primary responsibility of *driver-sales workers*, or *route drivers*, is to deliver their firm's products and represent the company in a positive manner. Their response to customer complaints and requests for special services can make the difference between a large order and a lost customer. Route drivers also use their selling ability to increase sales and gain additional customers.

The duties of driver-sales workers vary according to their industry, the policies of their particular company, and the emphasis placed on their sales responsibility. Most have wholesale routes that deliver to businesses and stores rather than homes. For example, wholesale bakery driver-sales workers deliver and arrange bread, cakes, rolls, and other baked goods on display racks in grocery stores. They estimate the amount and variety of baked goods to stock by paying close attention to the items that sell well, and those sitting on the shelves. They may recommend changes in a store's order or may encourage the manager to stock new bakery products. Driver-sales workers employed by laundries that rent linens, towels, work clothes, and other items visit businesses regularly to replace soiled laundry. From time to time, they solicit new orders from businesses along their route.

Vending machine driver-sales workers service machines in factories, schools, and other buildings. They check items remaining in the machines, replace stock, and remove money deposited in the cash boxes. They also examine each vending machine to make minor repairs, clean machines, and to see merchandise and change are dispensed properly.

After completing their route, driver-sales workers order items for the next delivery based on what products have been selling well, the weather, time of year, and any customer feedback.

Long haul truckdrivers may haul loads from city to city for a week or more before returning home. Some companies use two drivers on very long runs—one drives while the other sleeps in a berth behind the cab. "Sleeper" runs may last for days, or even weeks, usually with the truck stopping only for fuel, food, loading, and unloading.

Some long-distance drivers who have regular runs transport freight to the same city on a regular basis. Other drivers perform unscheduled runs because shippers request varying service to different cities every day. Dispatchers tell these drivers when to report for work and where to haul the freight.

Truckdrivers make sure cargo is secure before departing for their destination.

After long-distance truckdrivers reach their destination or complete their operating shift, the U.S. Department of Transportation requires they complete reports detailing the trip, the condition of the truck, and the circumstances of any accidents. In addition, Federal regulations require employers to subject drivers to random alcohol and drug tests while on duty.

Long-distance truckdrivers spend most of their working time behind the wheel but may load or unload their cargo after arriving at the final destination. This is especially common when drivers haul specialty cargo, because they may be the only one at the destination familiar with this procedure or certified to handle the materials. Auto-transport drivers, for example, drive and position cars on the trailers and head ramps and remove them at the dealerships. When picking up or delivering furniture, drivers of long-distance moving vans hire local workers to help them load or unload.

Working Conditions

Truckdriving has become less physically demanding because most trucks now have more comfortable seats, better ventilation, and improved ergonomically designed cabs. Although these changes make the work environment more attractive, driving for many hours at a stretch, unloading cargo, and making many deliveries can be tiring. Local truckdrivers, unlike long-distance drivers, usually return home in the evening. Some self-employed long distance truckdrivers who own and operate their trucks spend most of the year away from home.

Design improvements in newer trucks reduce stress and increase the efficiency of long-distance drivers. Many of the newer trucks are virtual mini-apartments on wheels, equipped with refrigerators, televisions, and bunks. Satellites and Global Positioning Systems (GPS) link many of these state-of-the-art vehicles with company headquarters. Troubleshooting, directions, weather reports, and other important communications can be delivered to the truck anywhere in the country within seconds. Drivers can easily communicate with the dispatcher to discuss delivery schedules and courses of action in the event of mechanical problems. The satellite link-up also allows the dispatcher to track the truck's location, fuel consumption, and engine performance.

The U.S. Department of Transportation governs work hours and other working conditions of truckdrivers engaged in interstate commerce. For example, a long-distance driver cannot work more than 60 hours in any 7-day period. Federal regulations also require that truckers rest 8 hours for every 10 hours of driving. Many drivers, particularly on long runs, work close to the maximum time permitted because they are typically compensated by the number of miles or hours they drive. Drivers on long runs may face boredom, loneliness, and fatigue. Drivers frequently travel at night, on holidays, and weekends to avoid traffic delays and deliver cargo on time.

Local truckdrivers frequently work 50 or more hours a week. Many who handle food for chain grocery stores, produce markets, or bakeries work long hours starting late at night or early in the morning. Although most drivers have a regular route, some have different routes each day. Many local truckdrivers, particularly driver-sales workers, load and unload their own trucks. This requires considerable lifting, carrying, and walking each day.

Employment

Truckdrivers held about 3.3 million jobs in 1998. Most truckdrivers find employment in large metropolitan areas where major trucking, retail, and wholesale companies have distribution outlets. Some drivers work in rural areas providing specialized services, such as delivering milk to dairies or coal to a railroad.

Trucking companies employed about 30 percent of all truckdrivers in the United States. Thirty-five percent worked for companies engaged in wholesale or retail trade, such as auto parts stores, oil companies, lumber yards, or distributors of food and grocery products. The remaining truckdrivers were distributed across many industries, including construction, manufacturing, and services.

Fewer than 1 out of 10 truckdrivers were self-employed. Of these, a significant number were owner-operators who either serve a variety of businesses independently or lease their services and trucks to a trucking company.

Training, Other Qualifications, and Advancement

State and Federal regulations govern the qualifications and standards for truckdrivers. All drivers must comply with Federal regulations and any State regulations exceeding Federal requirements. Truckdrivers must have a driver's license issued by the State in which they live, and most employers require a clean driving record. Drivers of trucks designed to carry at least 26,000 pounds—including most tractor-trailers as well as bigger straight trucks—must obtain a commercial driver's license (CDL) from the State in which they live. All truckdrivers who operate trucks transporting hazardous materials must obtain a CDL regardless of truck size. Federal regulations governing the CDL exempt certain groups including farmers, emergency medical technicians, firefighters, some military drivers, and snow and ice removers. In many States, a regular driver's license is sufficient for driving light trucks and vans.

To qualify for a commercial driver's license, applicants must pass a written test on rules and regulations, and then demonstrate they can operate a commercial truck safely. A national data bank permanently records all driving violations incurred by persons who hold commercial licenses. A State will check these records and not issue a commercial driver's license to a driver who already has a license suspended or revoked in another State. Licensed drivers must accompany trainees until they get their own CDL. Information on how to apply for a commercial driver's license may be obtained from State motor vehicle administrations.

While many States allow those who are 18 years and older to drive trucks within State borders, the U.S. Department of Transportation establishes minimum qualifications for truckdrivers engaged in interstate commerce. Federal Motor Carrier Safety Regulations require drivers to be at least 21 years old and pass a physical examination once every 2 years. The main physical requirements include good hearing, 20/40 vision with or without glasses or corrective lenses, and a 70 degree field of vision in each eye. Drivers can not be color blind. Drivers must be able to hear a forced whisper in one ear at not less than 5 feet, with or without a hearing aide. Drivers must have normal use of arms and legs and normal blood pressure. Drivers can not use any controlled substances, unless prescribed by a licensed physician. Persons with epilepsy or diabetes controlled by insulin are not permitted to be interstate truckdrivers. Federal regulations also require employers to test their drivers for alcohol and drug use as a condition of employment, and require periodic random tests while on duty. In addition, a driver must not have been convicted of a felony involving the use of a motor vehicle; a crime using drugs; driving under the influence of drugs or alcohol; or hit-and-run driving which resulted in injury or death. All drivers must be able to read and speak English well enough to read road signs, prepare reports, and communicate with law enforcement officers and the public. Also, drivers must take a written examination on the Motor Carrier Safety Regulations of the U.S. Department of Transportation.

Many trucking operations have higher standards than those described. Many firms require that drivers be at least 25 years old, be able to lift heavy objects, and have driven trucks for 3 to 5 years. Many prefer to hire high school graduates and require annual physical examinations.

Driver-training courses are a desirable method of preparing for truckdriving jobs and for obtaining a commercial driver's license. High school courses in driver-training and automotive mechanics may also be helpful. Many private and public technical-vocational

schools offer tractor-trailer driver training programs. Students learn to maneuver large vehicles on crowded streets and in highway traffic. They also learn to inspect the trucks and freight for compliance with Federal, State, and local regulations. Some programs provide only a limited amount of actual driving experience, and completion of a program does not assure a job. Persons interested in attending one of these schools should check with local trucking companies to make sure the school's training is acceptable.

Some States require prospective drivers to complete a training course in basic truckdriving before being issued their CDL. In Maine, for instance, prospective applicants must complete an 8-week course from a school certified by the Professional Truck Drivers Institute (PTDI). PTDI-certified schools provide training that meets Federal Highway Administration guidelines for training tractor-trailer drivers. Illinois requires the skills standards but drivers do not have to attend a certified school.

Drivers must get along well with people because they often deal directly with customers. Employers seek driver-sales workers who speak well and have self-confidence, initiative, tact, and a neat appearance. Employers also look for responsible, self-motivated individuals able to work with little supervision.

Training given to new drivers by employers is usually informal, and may consist of only a few hours of instruction from an experienced driver, sometimes on the new employee's own time. New drivers may also ride with and observe experienced drivers before assignment of their own runs. Drivers receive additional training to drive special types of trucks or handle hazardous materials. Some companies give 1 to 2 days of classroom instruction covering general duties, the operation and loading of a truck, company policies, and the preparation of delivery forms and company records. Driver-sales workers also receive training on the various types of products they carry so they will be more effective sales workers and better able to handle customer requests.

Very few people enter truckdriving professions directly out of school; most truckdrivers previously held jobs in other occupations. Driving experience in the Armed Forces can be an asset. In some instances, a person may also start as a truckdriver's helper, driving part of the day and helping to load and unload freight. Senior helpers receive promotion when driving vacancies occur.

Although most new truckdrivers are assigned immediately to regular driving jobs, some start as extra drivers, substituting for regular drivers who are ill or on vacation. They receive a regular assignment when an opening occurs.

New drivers sometimes start on panel, or other small "straight" trucks. As they gain experience and show competent driving skills, they may advance to larger and heavier trucks, and finally to tractor-trailers.

Advancement of truckdrivers is generally limited to driving runs that provide increased earnings or preferred schedules and working conditions. For the most part, a local truckdriver may advance to driving heavy or special types of trucks, or transfer to long-distance truckdriving. Working for companies that also employ long-distance drivers is the best way to advance to these positions. A few truckdrivers may advance to dispatcher, manager, or traffic work—for example, planning delivery schedules.

Some long-distance truckdrivers purchase a truck and go into business for themselves. Although many of these owner-operators are successful, some fail to cover expenses and eventually go out of business. Owner-operators should have good business sense as well as truckdriving experience. Courses in accounting, business, and business mathematics are helpful, and knowledge of truck mechanics can enable owner-operators to perform their own routine maintenance and minor repairs.

Job Outlook

Opportunities should be favorable for persons interested in truckdriving. This occupation has among the largest number of job openings each year. Although growth in demand for truckdrivers will create thousands of openings, the majority will occur as experienced drivers transfer to other fields of work, retire, or leave the labor force for other reasons. Jobs vary greatly in terms of earnings, weekly work hours, number of nights spent on the road, and in the quality of equipment operated. Because truckdriving does not require education beyond high school, competition is expected for jobs with the most attractive earnings and working conditions.

Employment of truckdrivers is expected to increase about as fast as the average for all occupations through the year 2008 as the economy grows and the amount of freight carried by trucks increases. The increased use of rail, air, and ship transportation requires truckdrivers to pick up and deliver shipments. Growth of long-distance drivers may slow as rail cars increasingly ship loaded trailers across country, but long-distance truckdrivers will continue to haul perishable and other time-sensitive goods.

Average growth of local and long-distance truckdriver employment will outweigh the slow growth in driver-sales worker jobs. The number of truckdrivers with sales responsibilities is expected to increase slower than the average for all other occupations because companies are increasingly splitting their responsibilities among other workers. They will shift sales, ordering, and customer service tasks to sales and office staffs, and use regular truckdrivers to make deliveries to customers.

Job opportunities may vary from year to year, because the strength of the economy dictates the amount of freight moved by trucks. Companies tend to hire more drivers when the economy is strong and deliveries are in high demand. Consequently, when the economy slows, employers hire fewer drivers or even lay off drivers. Independent owner-operators are particularly vulnerable to slowdowns. Industries least likely to be affected by economic fluctuation tend to be the most stable places for employment.

Earnings

Median hourly earnings of drivers of light and heavy trucks were $11.67 in 1998. The middle 50 percent earned between $8.80 and $15.57 an hour. The lowest 10 percent earned less than $6.51 and the highest 10 percent earned more than $19.14 an hour. Median annual earnings in the industries employing the largest numbers of heavy or tractor-trailer truckdrivers in 1997 were as follows:

Trucking and courier services, except air	$14.10
Groceries and related products	13.30
Local government, except education and hospitals	11.60
Highway and street construction	11.40
Concrete, gypsum, and plaster products	11.20

Median annual earnings in the industries employing the largest number of light truckdrivers, including delivery and route workers, in 1997 were as follows:

Air transportation, scheduled	$14.10
Trucking and courier services, except air	10.90
Groceries and related products	10.60
Motor vehicles, parts, and supplies	7.30
Eating and drinking places	5.70

Median hourly earnings of driver-sales workers, including commission, were $9.29 in 1998. The middle 50 percent earned between $6.13 and $13.06 an hour. The lowest 10 percent earned less than $5.58 and the highest 10 percent earned more than $17.41 an hour. Median annual earnings in the industries employing the largest number of driver-sales workers in 1997 were as follows:

Laundry, cleaning, and garment services	$12.20
Groceries and related products	11.20
Nonstore retailers	9.30
Motor vehicles, parts, and supplies	7.00
Eating and drinking places	5.60

As a general rule, local truckdrivers receive an hourly wage and extra pay for working overtime, usually after 40 hours. Employers pay long-distance drivers primarily by the mile. Their rate per mile can vary greatly from employer to employer and may even depend on the type of cargo. Typically, earnings increase with mileage driven, seniority, and the size and type of truck driven. Most driver-sales workers receive a commission based on their sales in addition to an hourly wage.

Most self-employed truckdrivers are primarily engaged in long-distance hauling. After deducting their living expenses and the costs associated with operating their trucks, earnings of $20,000 to $25,000 a year are common.

Many truckdrivers are members of the International Brotherhood of Teamsters. Some truckdrivers employed by companies outside the trucking industry are members of unions representing the plant workers of the companies for which they work.

Related Occupations

Other driving occupations include ambulance driver, busdriver, chauffeur, and taxi driver.

Sources of Additional Information

Information on truckdriver employment opportunities is available from local trucking companies and local offices of the State employment service.

Information on career opportunities in truckdriving may be obtained from:

☛ American Trucking Associations, Inc., 2200 Mill Rd., Alexandria, VA 22314. Internet: **http://www.truckline.com**

☛ American Trucking Association Foundation, 660 Roosevelt Ave., Pawtucket, RI 02860

The Professional Truck Driver Institute of America, a nonprofit organization established by the trucking industry, manufacturers, and others, certifies truckdriver training programs meeting industry standards. A free list of certified tractor-trailer driver training programs may be obtained from:

☛ Professional Truck Driver Institute, 2200 Mill Rd., Alexandria, VA 22314, or by calling (703) 838-8842. Internet: **http://www.ptdia.org**

Water Transportation Occupations

(O*NET 97502A, 97505, 97508, 97514, 97517, and 97521)

Significant Points

- Many jobs in water transportation occupations require a merchant mariner's document or a license from the U.S. Coast Guard.
- Merchant mariners on ocean going ships are hired for periods ranging from a single voyage to several continuous voyages and may be away from home continuously for months.
- Jobs aboard ocean going vessels have high pay but competition for them remains keen and merchant mariners might have to wait months between work opportunities.

Nature of the Work

Movement of huge amounts of cargo, as well as passengers, between nations and within our nation depends on workers in water transportation occupations. They operate and maintain deep sea merchant ships, tugboats, towboats, ferries, dredges, excursion vessels, and other waterborne craft on the oceans, the Great Lakes, in harbors, on rivers and canals, and on other waterways. (Workers who operate water craft used in commercial fishing are described in the section on fishers and fishing vessel operators elsewhere in the *Handbook*.)

Captains or *masters* are in overall command of the operation of a vessel and they supervise the work of any other officers and crew. They determine the course and speed, maneuver to avoid hazards, and continuously monitor the vessel's position using charts and navigational aides. They either direct or oversee crew members who steer the vessel, determine its location, operate engines, communicate to other vessels, perform maintenance, handle lines, or operate vessel equipment. Captains and their department heads insure that proper procedures and safety practices are followed; check that machinery and equipment are in good working order; and oversee the loading and discharging of cargo or passengers. They also maintain logs and other records tracking the ships' movements, efforts at controlling pollution, and cargo/passenger carrying history.

Deck officers or *mates* perform the work for captains on vessels when they are on duty. Mates also supervise and coordinate activities for the crew aboard the ship. They inspect the cargo holds during loading to ensure the load is stowed according to specifications. Mates supervise crew members engaged in maintenance and the primary up-keep of the vessel. All mates stand watch for specified periods, usually 4 hours on and 8 hours off. However, on smaller vessels, there may be only one mate (called a pilot on some inland vessels) who alternates watches with the captain. The mate would assume command of the ship if the captain became incapacitated. When more than one mate is necessary aboard a ship, they are typically designated Chief Mate or First Mate, Second Mate, and Third Mate.

Marine or *ship engineers* operate, maintain, and repair propulsion engines, boilers, generators, pumps, and other machinery. Merchant marine vessels usually have four engineering officers: A chief engineer, and a first, second, and third assistant engineer. Assistant engineers stand periodic watches, overseeing the safe operation of engines and machinery.

Seamen, also called *deckhands* (particularly on inland waters), operate the vessel and its deck equipment under the direction of the ship's officers, and keep the non-engineering areas in good condition. They stand watch, looking out for other vessels and obstructions in the ship's path and navigational aids such as buoys and lighthouses. They also steer the ship, measure water depth in shallow water, and maintain and operate deck equipment such as lifeboats, anchors, and cargo-handling gear. When docking or departing, they handle lines. They also perform routine maintenance chores such as repairing lines, chipping rust, and painting and cleaning decks or other areas. Seamen may also load and unload cargo, if necessary. On vessels handling liquid cargo, they hook up hoses, operate pumps, and clean tanks. Deckhands on tugboats or tow vessels tie barges together into tow units, inspect them periodically, and disconnect them when the destination is reached. Larger vessels usually have a *boatswain* or head seaman.

Qualified members of the engine department, or QMED's, work in the engine spaces below decks under the direction of the ship's engineering officers. They lubricate gears, shafts, bearings, and other moving parts of engines and motors, read pressure and temperature gauges and record data, and may assist with repairs and adjust machinery.

A typical deep sea merchant ship has a captain, three deck officers or mates, a chief engineer and three assistant engineers, plus six or more non-officers, such as deck seamen, QMED's, and cooks or foodhandlers. The size and service of the ship determine the number of crew for a particular voyage. Small vessels operating in harbors, rivers, or along the coast may have a crew comprised only of a captain and one deckhand. The cooking responsibilities usually fall under the deckhands' duties. On larger coastal ships, the crew may include a captain, a mate or pilot, an engineer, and seven or eight seamen. Non-licensed positions on a large ship may include a full-time cook, an electrician, machinery mechanics, and a radio officer.